

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,883,574 B2
APPLICATION NO. : 10/633926
DATED : April 26, 2005
INVENTOR(S) : Gregory M. Chapman

Page 1 of 9

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The Title Page showing an illustrative figure, should be deleted and substitute therefor the attached title page.

On the title page:

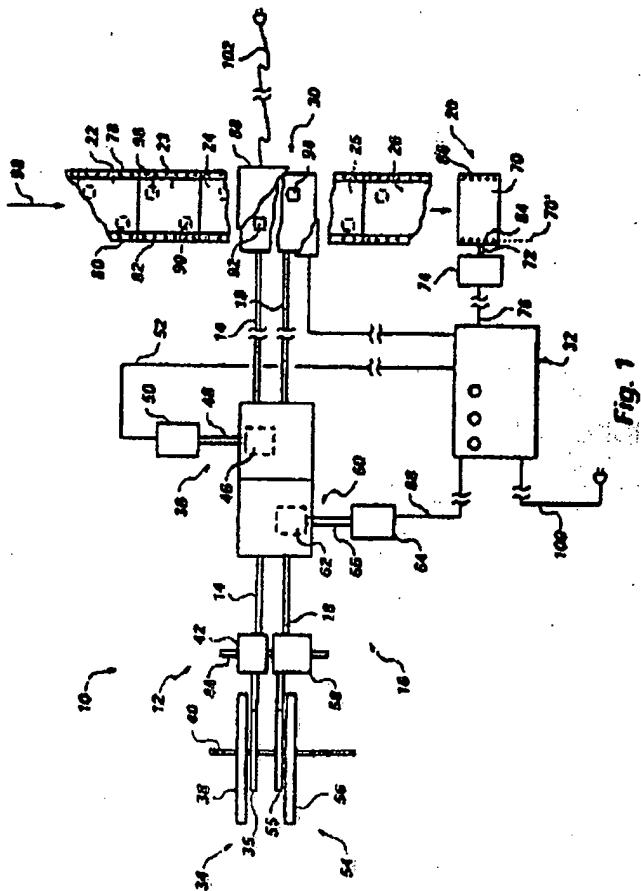
Item (54) "Title",

change "APPARATUS FOR APPLICATION OF ADHESIVE TAPE TO SEMICONDUCTOR DEVICES" to --METHOD AND APPARATUS FOR APPLICATION OF ADHESIVE TAPE TO SEMICONDUCTOR DEVICES--

In the drawings:

In FIG. 1,

change existing lead line for reference numeral --86-- to accurately extend from teeth on right side of indexing roller 70 (As shown below)



PLEASE
SCAN
NEW
TITLE
PAGE
ATTACHED
(NEW PAGE 9 of 9)

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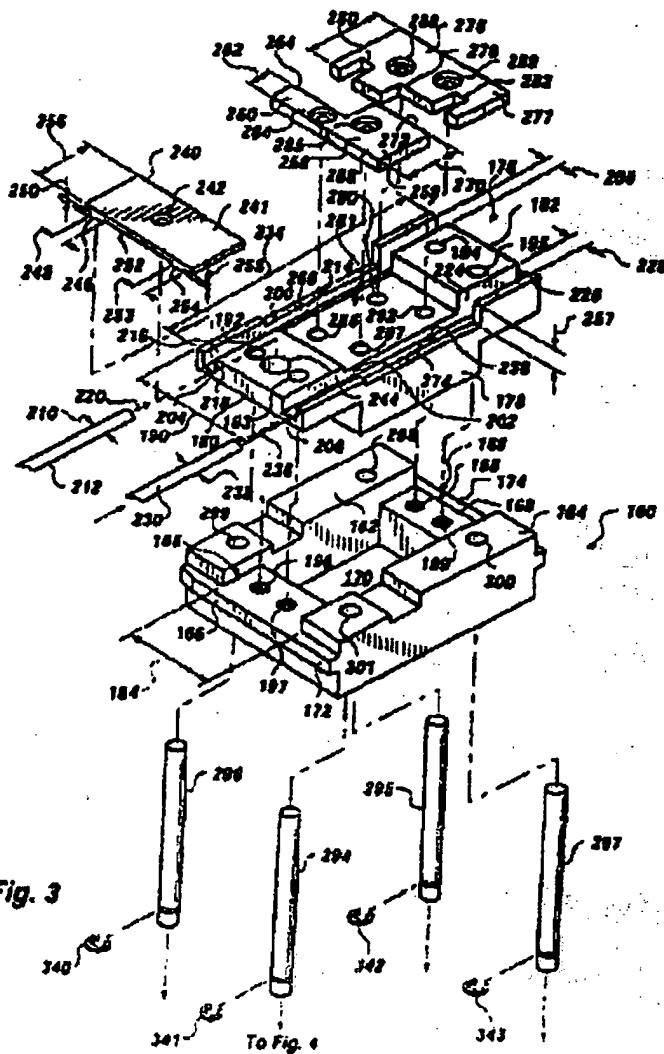
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In FIG. 3,

change lowermost second occurrence of reference numeral “260” located below reference numeral 290 to --261--;
add reference numeral --184-- and an appropriate lead line to indicate a distance
change first occurrence of reference numeral “341” located below guide post 296, to --340-- (As shown below)



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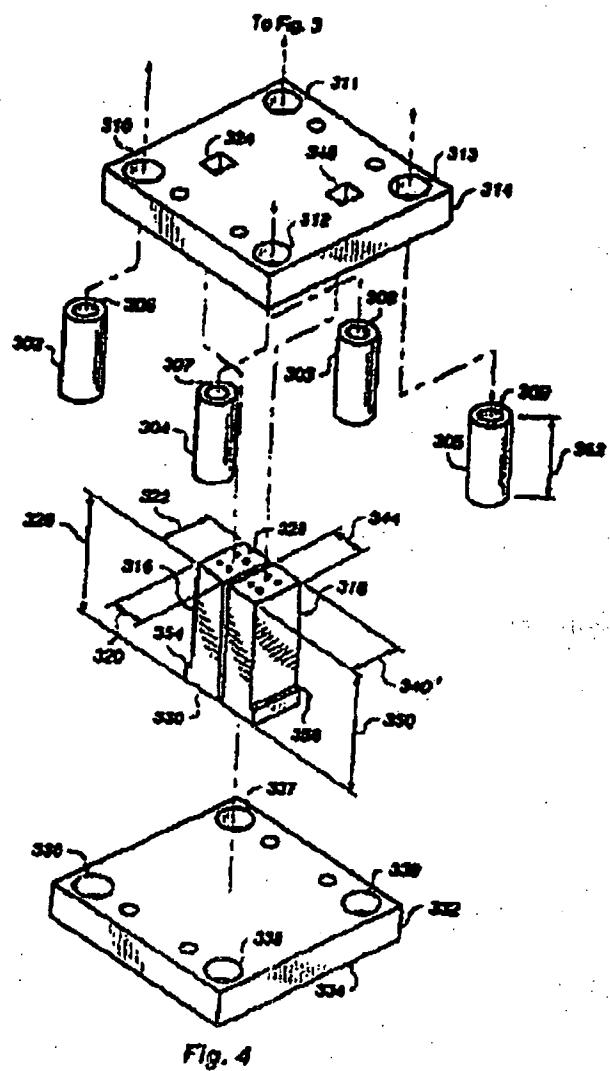
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In FIG. 4,

change reference numeral "340" to --340'-- (As shown below)



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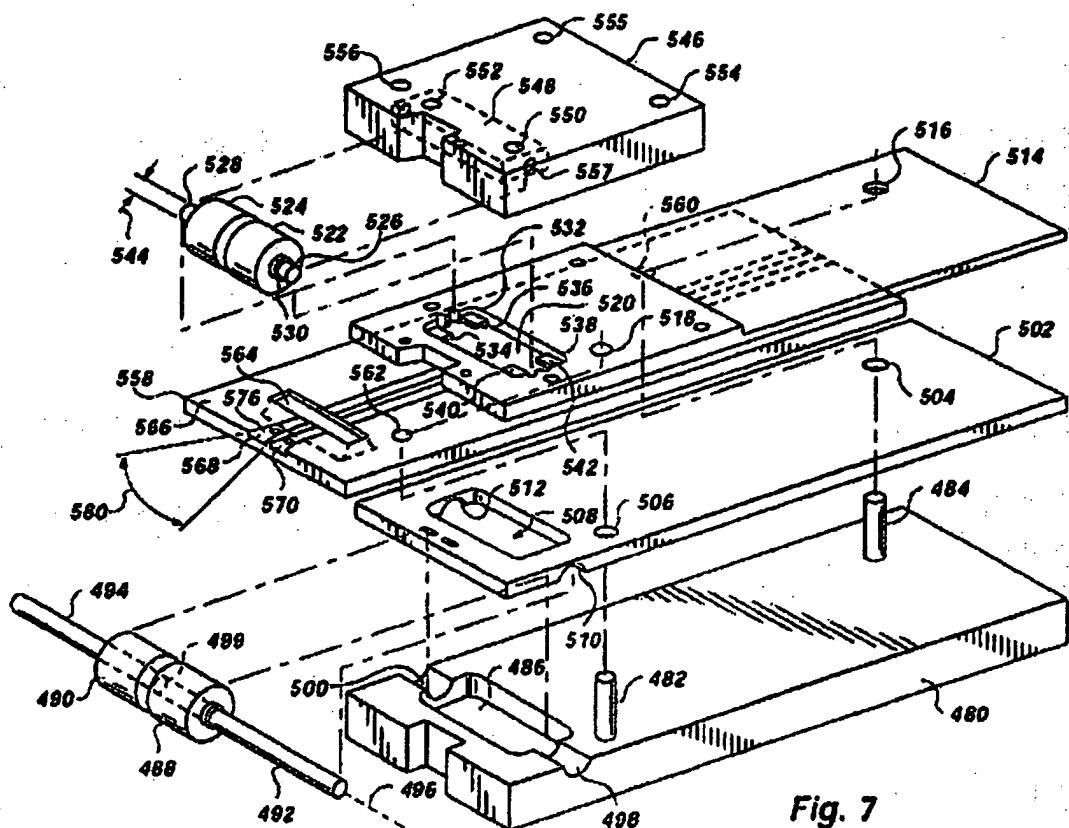
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In FIG. 7,

add reference numeral --562-- and associated lead line to aperture located left of reference numeral 540 (As shown below)



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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In FIG. 12, add reference numeral --568-- and an appropriate lead line (As shown below)

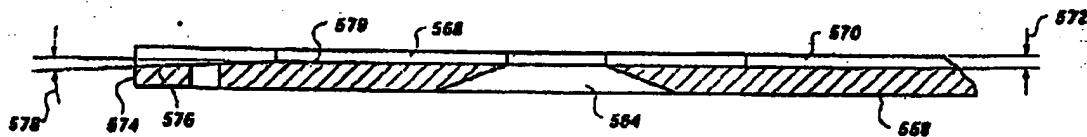


Fig. 12

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In FIG. 13,

add reference numeral --592-- and an appropriate lead line (As shown below)

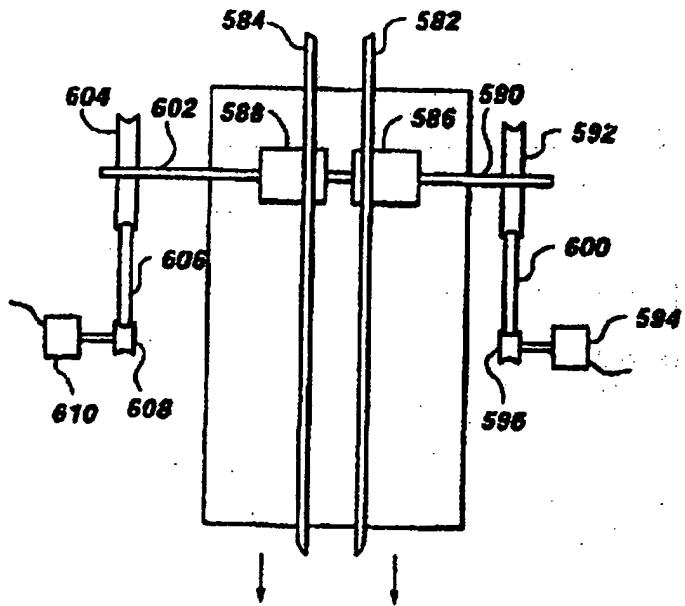


Fig. 13

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In FIG. 14,

move existing reference numeral "618" and associated lead line to far right upper side of drawing, with lead line for --618-- extending from portion adjacent to 622; move existing reference numeral "614" and associated lead line to far lower left side of drawing, with lead line for --614-- extending from portion adjacent to 616; delete lead lines with out reference numerals (As shown below)

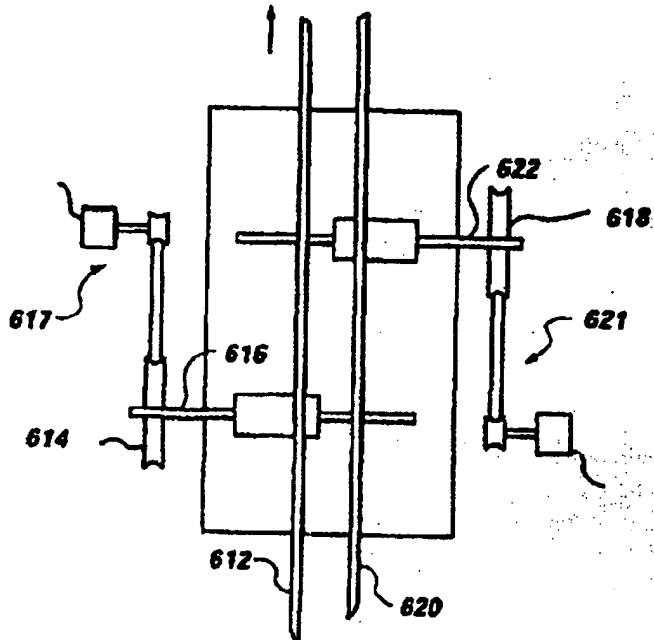


Fig. 14

COLUMN 1, LINE 1,

change "APPARATUS FOR APPLICATION OF ADHESIVE TAPE TO SEMICONDUCTOR DEVICES" to --METHOD AND APPARATUS FOR APPLICATION OF ADHESIVE TAPE TO SEMICONDUCTOR DEVICES--

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 1, LINE 47, change "lead-over-chip" to --lead-over-chip--
COLUMN 7, LINE 52, after "die site" and before "of" insert --96--
COLUMN 9, LINE 20, change "thought he" to --through the--
COLUMN 10, LINE 24, change "show" to --shown--
COLUMN 11, LINE 8, change "rear cross member" to --rear cross member 168--
COLUMN 13, LINE 57, change "rings 341-343" to --rings 340-343--
COLUMN 13, LINE 59, change "length 340" to --length 340'--
COLUMN 14, LINE 6, change "340" to --340'--
COLUMN 14, LINE 8, change "340" to --340'--
COLUMN 14, LINE 15, change "bushings 302-315" to --bushings 302-305--
COLUMN 17, LINE 58, change "along right" to --along the right--

This certificate supersedes certificate of correction
issued March 3, 2009.

[Redacted]
[Redacted]
[Redacted]
[Redacted]



US006883574B2

(12) **United States Patent**
Chapman(10) **Patent No.:** US 6,883,574 B2
(45) **Date of Patent:** Apr. 26, 2005(54) **METHOD AND APPARATUS FOR APPLICATION OF ADHESIVE TAPE TO SEMICONDUCTOR DEVICES**(75) **Inventor:** Gregory M. Chapman, Meridian, ID (US)(73) **Assignee:** Micron Technology, Inc., Boise, ID (US)(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.(21) **Appl. No.:** 10/633,926(22) **Filed:** Aug. 4, 2003(65) **Prior Publication Data**

US 2004/0026044 A1 Feb. 12, 2004

Related U.S. Application Data

(60) Continuation of application No. 09/875,632, filed on Jun. 6, 2001, now Pat. No. 6,607,019, which is a continuation of application No. 09/330,794, filed on Jun. 14, 1999, now Pat. No. 6,267,167, which is a division of application No. 08/908,291, filed on Aug. 7, 1997, now Pat. No. 6,096,165.

(51) **Int. Cl.:** B32B 31/00(52) **U.S. Cl.:** 156/433; 156/511; 156/517; 156/521(58) **Field of Search:** 156/355, 433, 156/516, 517, 521, 511; 438/111, 112, 118, 123(56) **References Cited****U.S. PATENT DOCUMENTS**

2,157,735 A	5/1939	Brite
3,177,629 A	4/1965	Anspach
3,308,000 A	3/1967	Holman
3,332,818 A	7/1967	MacLeod

3,436,294 A	4/1969	Marano
3,536,550 A	10/1970	Von Hofe
4,193,834 A	3/1980	Bernardi
4,279,682 A	7/1981	Hamagami et al.
4,317,695 A	3/1982	Asar Madhu P. et al.
4,539,058 A	9/1985	Burgess et al.
4,646,127 A	2/1987	Barnhart
4,862,245 A	8/1989	Pashby et al.
4,985,105 A	1/1991	Masuda
5,108,536 A	4/1992	Sokolovsky et al.
5,286,679 A	2/1994	Farnworth et al.
5,304,842 A	4/1994	Farnworth et al.
5,635,009 A	6/1997	Kawamura et al.
6,012,502 A	1/2000	VanNortwick et al.
6,025,212 A	2/2000	VanNortwick et al.
6,096,165 A	8/2000	Chapman
6,099,678 A	8/2000	Kotato et al.
6,267,167 B1	7/2001	Chapman
6,607,019 B2	8/2003	Chapman

FOREIGN PATENT DOCUMENTS

JP	58-31514	2/1983
JP	04056159	2/1992

* cited by examiner

Primary Examiner—John T. Haran*(74) Attorney, Agent, or Firm*—TraskBritt(57) **ABSTRACT**

A method and apparatus for application of adhesive tape to semiconductor devices are disclosed. A first adhesively coated tape material length is supplied to a first die associated with a cutting and application mechanism. A second length of adhesively coated tape material is also provided to a second die of the cutting and application mechanism. A plurality of LOC leadframes is supplied sequentially through the application structure to apply a first decal cut from the first tape material to a first die site at a first location and to apply a second decal cut from the second tape material to a second die site at a second location.

27 Claims, 13 Drawing Sheets

